

15895, April 1, 1958 (SRSC, staminate only); novaculite hills 12 miles south of Marathon, elev. 3900 ft., abundant low shrubs, *M. C. Johnston* 3605, 3606, 3607 (pistillate, sun and shade forms), and 3608, 3609, 3610 (staminate, sun and shade forms), Nov. 5, 1958 (SRSC, et al.). **Presidio County:** small, west-flowing canyon in Glen Rose limestone, northwest of Solitario Peak, lat. $29^{\circ}27\frac{1}{2}'$ N. by $103^{\circ}51\frac{1}{2}'$ W., alt. 4200-4300 ft., *M. C. Johnston* 3463, Oct. 12, 1958 (SRSC, pistillate).

CHIHUAHUA: rocky hills near Chihuahua, *Pringle* 140, May 23, 1885 (GH, US); Santa Eulalia hills about 13 miles east-southeast of Chihuahua, *Wilkinson s. n.*, July 30, 1885 (US); vicinity of Chihuahua, alt. ca. 1300 meters, *E. Palmer exs.* 73 & 77, April 8-27, 1908 (GH, US); vicinity of Chihuahua, alt. ca. 1300 meters, *E. Palmer exs.* 368, June 5-10, 1908 (GH, US); Sierra Azul (Sierra Mapula) ca. 15 miles south-southeast of Chihuahua, shrub at base of cliff, elev. 1600-1700 meters, *F. W. Pennell* 18664, Sept. 10, 1934 (US, PH, MEXU).

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DATES OF PUBLICATION OF GÄRTNER'S DE FRUCTIBUS ET SEMINIBUS PLANTARUM

GEORGE K. BRIZICKY

Despite extensive research in botanical bibliography, there are still many works, the exact publication dates of which are doubtful. Among these works is Gärtner's *De fructibus et seminibus plantarum*. Below are some notes which it is hoped will clarify the dates of appearance of this important taxonomic reference.

Pritzel (Thesaurus lit. bot. ed. 2. p. 116. 1872) cites the two volumes of Gärtner's work as appearing in 1788 and

1791 respectively. Van Steenis-Kruseman and Stearn in *Flora Malesiana* (Ser. 1. 4(5) : p. CLXXXIII. 1954) refer to Burtt's study (Kew Bull. p. 148. 1951) and merely state that volume 1 of *De fructibus* antedates part 1 of volume 3 of Lamarck's *Encyclopédie méthodique* (1789) and that volume 2 of Gärtner precedes part 2 of volume 3 of Lamarck (1791-1792). Actual publication dates for Gärtner's work are not cited. Burtt (l. c.) presents proof for the above statement and quotes 1789 as the publication date for volume 1 of *De fructibus* and 1791 as the issue date for volume 2 of Gärtner's work. Although 1789 is the correct year of effective publication for volume 1 of Gärtner, there are certain circumstances surrounding the issuance of this volume which should be brought to light. This, to avoid discrepancies in the future. The story of the publication of volume 1 of *De fructibus*, based on various announcements and reviews, is about as follows:

In the first quarter of 1788, the Cotta Booksellers of Tübingen, agents for Gärtner, announced the appearance of the first volume of Gärtner's *De fructibus* in the "Leipziger Oster-Messe Verzeichnis."

On 10 August 1788, the Cotta Booksellers advised the "Intelligenzblatt der Allgem. Literatur-Zeitung"¹ (No. 44. p. 377-378) as follows: "*Der erste Theil der im letztern Leipziger OM. Verzeichnis angekündigten Werks des Hrn. D. Harter (sic!) de fructibus et seminibus plantarum 3 Alph. in gr. 4 mit Kupf. wird, verschiedener Hindernisse wegen, erst in einigen Monaten fertig.*" A very brief review of this volume, probably written by Gärtner, was added.

In the October 1788 issue of "Observations et mémoires sur la physique, l'histoire naturelle . . ." (33: 324-325), a review of volume 1 of *De fructibus* appeared. The report was relatively brief, Gärtner was misspelled as Gaestner, and 14 chapters comprising 384 pages were cited correctly.

On 1 March 1789, in the "Intelligenzblatt" (No. 34. p. 267-268) cited above, the Cotta Booksellers entered an an-

¹ The publication known as the "Allgemeine Literatur-Zeitung" was issued in two sections: the "Zeitung" proper, and the "Intelligenzblatt" or intelligencer. The latter was devoted to announcements of new books.

nouncement identical to that of 10 August 1788. Here Gärtner was spelled correctly.

A review of volume 1 of *De fructibus* appeared on 28 May 1789 in the "Göttingische Anzeigen von gelehrten Sachen" (No. 85. p. 850-854). The "Allgemeine Literatur-Zeitung" (No. 246. p. 417-424) also carried a review in the 15 August 1789 issue.

Persuing the above, the reader can see from the announcements of Cotta Booksellers, and the review in the "Göttingische Anzeigen," that the completion of the first volume of *De fructibus*, and its appearance at booksellers, did not occur until April or early May 1789.

The review in "Observations et mémoires" (October 1788) is puzzling. However, it seems to be easily explainable as follows:

(1) It appears that the text for volume 1 of *De fructibus* had already been printed at the time of the review in the "Observations," as the reviewer cites the exact number of pages — 384.

(2) It is probable that Gärtner expected completion of volume 1 by that time (Cotta announcement of 10 August 1788) and wrote the above-mentioned review (perhaps "announcement"?) for the "Observations."

(3) Whatever obstacles prevented the appearance of *De fructibus* as twice announced by Cotta in 1788, probably pertained to the issuance of the copper engravings, not the text.

It is highly improbable, however, that the text to the first volume became accessible to botanists before completion of the volume, i. e., before April or early May 1789. Therefore, the latter date must be accepted as the date of effective publication for Gärtner's new taxa in the first volume of *De fructibus*.

Both Burt (Kew Bull. 1951) and Pritzel (Thesaurus lit. bot. ed. 2. 1872) mention 1791 as the publication date for volume 2 of Gärtner's *De fructibus*. This date is only partially correct as the volume was published in installments.

On 26 August 1790 Gärtner announced in the "Intelligenzblatt der Allgem. Literatur-Zeitung" (No. 116. 6. 953-954): "*Den zweyten Theil aber gedenke ich in drey Lieferungen*

auszugeben, woran die erste, von 1 Alph. und 40 Kupf. innerhalb zwei Monaten; die zweyte, von ungefähr gleicher Bogenzahl mit 37 Kupf. gleich nach dem neuen Jahr; und die dritte, von etwa 1 1/2 Alph. nebst 23 Kupf. mit oder bald nach der nächsten Oster-Messe um so gewisser erscheinen soll, als von den sämtlichen Kupfer-Platten bereits schon 66 Stück fertig sind."

A review of the incomplete second volume of *De fructibus* appeared on 25 August 1791 in the "Göttingische Anzeigen von gelehrten Sachen" (No. 136. p. 1367-1368) where we read: "Von dem vertrefflichen Werke des kürzlich verstorbenen Prof. Gärtner haben wir noch 1790 das sechste und siebente S. 1-184, Pl. 80-119. und 1791 das achte und neunte Hundert S. 185-352. Pl. 120-156. erhalten . . ."

In the announcement of Cotta which appeared in the "Intelligenzblatt der Allgem. Literatur-Zeitung" (No. 24. p. 186) on 23 February 1791, Centuria 6 and 7 of *De fructibus* were listed among books published after Easter 1790, and Centuria 8-10a among books to appear before Easter 1791.

The edition of Centuria 10 had apparently been delayed and this part of Gärtner's work seems to have appeared not earlier than in the second half of 1791. The earliest review of the complete second volume *De fructibus*, known to the writer, is that in the "Allgemeine Literatur-Zeitung" (No. 98. p. 97-103) of 16 April 1792.

We can conclude therefore, that Gärtner's work, *De fructibus et seminibus plantarum* was published as follows:

Volume 1:	April or early May 1789
Volume 2:	Centuria 6 and 7: 1-184, pl. 80-119. October or November 1790
	Centuria 8 and 9: 185-352, pl. 120-156. Probably April, but not later than early August 1791
	Centuria 10: 353-520, pl. 157-180. Probably the second half of 1791.

— S. J. RECORD MEMORIAL COLLECTION, SCHOOL OF FORESTRY,
YALE UNIVERSITY, NEW HAVEN, CONNECTICUT.